

WHAT IS CLAIMED IS:

1. An object monitoring system comprising:

a first transmitter attached to an object to be monitored, said first transmitter for substantially periodically transmitting a first signal including a unique ID of said first transmitter; and

10 a transceiver having a processor and memory for associating with transmitters by storing IDs of respective transmitters, a receiver for receiving said first signal transmitted from said first transmitter, said processor for processing said first signal received by said receiver including comparing said unique ID received with said stored IDs, and signaling an alarm upon failure of a preset condition.

15 2. The system according to claim 1, wherein said

preset condition includes the failure of a match of said unique ID with stored IDs within a preset time period.

3. The system according to claim 1, further including

a comparator with a preset threshold value representing a preset energy level and said preset condition includes

receipt of said first signal from said first transmitter at an energy level above said threshold.

4. The system according to claim 1, wherein said processor includes means for determining energy level of said first signal received from said first transmitter and means for signaling an alarm upon determining said signal is below a preset energy level.

5. The system according to claim 1, further including a second transmitter for attaching to a second object, said second transmitter for transmitting a second signal including a second ID, said processor and memory in said transceiver for associating said second transmitter, and for indicating an alarm upon failure of a preset condition based on said first signal and said second signal received from said first and second transmitters.

6. The system according to claim 5, wherein said second transmitter includes a receiver and an alarm indicator, said transceiver for transmitting an alarm signal upon failure of said preset condition, and said receiver for

receiving said alarm signal for activating said alarm indicator.

7. The system according to claim 5, wherein said preset condition includes indication of separation of said first and second transmitters of more than a preset distance.

8. The system according to claim 1, wherein said preset condition includes indication of movement of said first transmitter beyond a preset distance from said transceiver.

9. The system according to claim 5, wherein an alarm is not activated upon failure of a preset condition if said second transmitter is determined to be present by the transceiver.

10. The system according to claim 1, further including a central controller, and said transceiver for wirelessly transmitting messages including indication of receipt of said first signal from said first transmitter to said central controller.

11. The system according to claim 10, wherein said central controller receives messages from a plurality of transceivers, said central controller having a processor and memory for determining locations of transmitters and transceivers from said messages.

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12. The system according to claim 1, further including an actuator connected to said transceiver, said actuator being activated upon indication of said alarm.

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13. A method of object monitoring, comprising the steps of:

transmitting from a first transmitter attached to an object to be monitored a first signal including a unique ID of said first transmitter;

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associating at a transceiver having a processor and memory at least one transmitter by storing IDs of respective transmitters;

receiving at said transceiver said first signal transmitted from said first transmitter;

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processing by said processor said first signal received by said receiver including comparing said unique ID received with said stored IDs; and

signaling an alarm upon failure of a preset
condition.

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14. The method according to claim 13, wherein said
preset condition includes the failure of a match of said
unique ID with stored IDs within a preset time period.

15. The method according to claim 13, further
including the steps of:

determining energy level of said first signal
received from said first transmitter; and

10 signaling an alarm upon determining said first
signal is below a preset energy level.

15. The method according to claim 13, further
including attaching a second transmitter to a second object;
associating said second transmitter;
transmitting a second signal including a second ID
from said second transmitter; and

15 indicating an alarm upon failure of a preset
condition based on said first signal and said second signal
received from said first and second transmitters.

17. The method according to claim 16, further including:

receiving at said second transmitter an alarm signal transmitted from said transceiver upon failure of said preset condition, and

activating an alarm indicator at said second transmitter upon receipt of said alarm signal.

18. The method according to claim 13, wherein said preset condition includes indication of movement of said first transmitter beyond a preset distance from said transceiver.

19. The method according to claim 13, further including the steps of:

transmitting messages from said transceiver to a central controller, said messages including indication of receipt of said first signal from said first transmitter; and

determining locations of transmitters and transceivers from said messages at said central controller.

20. An object monitoring system comprising:

5 a plurality of transmitters attached to objects to be monitored, said transmitters for substantially periodically transmitting signals including unique IDs of respective transmitters;

10 a plurality of transceivers, each having a processor and memory for associating with said transmitters by storing IDs of respective transmitters, a receiver for receiving said signals transmitted from transmitters, said processor for processing said signals received by said receiver including comparing said unique IDs received with said stored IDs; and

15 a central processing unit for receiving messages from said plurality of transceivers including IDs of said transmitters for determining locations of said transmitters based on said messages.